REMARKS

The claims are 12-15 with claims 13 and 14 being withdrawn from consideration.

The above amendment is responsive to the rejection under 35 U.S.C. 112 in Official Action paragraphs 4 and 5.

In Official Action paragraph 8, claims 12 and 15 have been rejected as being obvious over Japanese publication JP 07-326371 ("JP '371") in view of Wilderman 2016162.

This rejection is respectfully traversed.

JP '371 discloses an idea of using a substrate paper which is coated with paste liquid and is then dried, as a separator with which to separate zinc negative-electrode can from positive electrode mix in a manganese dry battery. Specifically, however, JP '371 only mentions kraft paper onto one side or both sides of which a paste liquid which comprises an alcohol solvent and, mixed and dispersed therein, a starch like cornstarch as a main component and a sticky material like locust bean gum as well, is applied and dried. Thus, JP '371 teaches or suggests neither an idea of using aramid paper as the above-mentioned substrate paper, nor an idea of using a liquid which contains silicon compound such as silica gel, as a liquid with which to coat the surface of said substrate paper.

In short, JP '371 is silent about the characteristic features of the present invention.

It is apparent therefore that JP '371 provides no hint of the present invention.

Wilderman, on the other hand, discloses an idea of impregnating a porous ebonite diaphragm with a sodium silicate solution in order to improve the diaphragm in wettability to electrolyte, and of thereafter converting the sodium silicate into silica gel.

However, also Wilderman mentions or suggests no idea of using aramid paper as a substrate for separator.

As a material for separator, ebonite and aramid are very different from each other both chemically and physically; it would have been quite impossible to foresee the use of the latter from that of the former.

Furthermore, kraft paper of JP '371 is made of cellulose, is therefore very hydrophilic by

nature, and has accordingly no need of improvement of wettability. Hence, it should be said therefore that no one would have been motivated by the teaching of Wilderman to coat the kraft paper of JP '371 with silica gel, or the like.

Moreover, neither JP '371 nor Wilderman teaches or suggests an idea of setting a sucking height of separator at a certain predetermined value.

The rejection states, "...the specific sucking height is deemed to be an inherent property or characteristic of the separator..." However, since the chemical composition of separator of, for instance, Wilderman is very different from the composition of separator of the present invention, it is unobvious as to whether the diaphragm of Wilderman would satisfy the requirements of sucking height as stipulated in the present invention.

As stated above, neither JP '371 nor Wilderman teaches or suggests the features and advantages of the present invention.

Therefore the present invention is unobvious over JP '371 and Wilderman.

In Official Action paragraph 9, claims 12 and 15 have been rejected as obvious over JP 10-154500 ("JP '500") in view of Wilderman.

JP '500 discloses a separator for lead accumulator which comprises a porous sheet substrate composed of a wet-processed sheet made by the dispersion of at least one species of inorganic powder or inorganic fiber, at least one side of said sheet substrate having a coating layer which comprises inorganic powder and acid-resistant resin.

Also JP '500 teaches or suggests nothing about using aramid paper as the above-mentioned wet-processed sheet, nor does JP '500 teach or suggest anything about sucking height.

Furthermore, as the rejection recognizes, JP '500 does not disclose the presently recited specific silica gel as the coating material.

The purpose of providing a coating layer which comprises inorganic powder and acid-resistant resin on the surface of a wet-processed sheet in JP '500 is the decrease of electrical resistance and the improvement of oxidation resistance; JP '500 teaches or suggests nothing about the improvement of wettability.

It should be said therefore that, even though it had been known from Wilderman to coat

the surface of separator with silica gel with a view to improving wettability, it could have given no incentive to coat a wet-processed sheet with silica gel in JP '500.

Besides, even though the wet-processed sheet of JP '500 were coated with silica gel, it would be impossible to form the separator of present invention.

On the aforementioned grounds, the present claims are unobvious over JP '500 and Wilderman.

In Official Action paragraph 10, claims 12 and 15 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese publication JP 07-326371 (hereinafter JP '371) in view of Zuckerbrod et al. 2006/0040175.

Further, in Official Action paragraph 11, claims 12 and 15 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese publication JP 10-154500 (hereinafter JP '500) in view of Zuckerbrod et al. 2006/0040175.

These rejections are respectfully traversed.

Both of the above rejections rely on Zuckerbrod which has an effective date of October 25, 2002, this date is antedated by Applicant's Japanese Priority Application 2002/189696 filed June 28, 2002. A copy of said Japanese Priority Application is already of record and an English translation with Translator's Statement of Accuracy is submitted herewith.

The Japanese Priority Application supports the present claims.

Accordingly, the above rejections in Official Action paragraphs 10 and 11 are overcome.

In Official Action paragraphs 12 and 13, claims 12 and 15 as being obvious over Japanese publication JP '371 or JP '500 in view of Jen et al. 2001/0036573.

With respect to JP '371 and JP '500, please see the above discussion of these references.

As for Jen et al., it teaches or suggest nothing about the features and advantages of the present claims as pointed out in the response of January 18, 2008 at pages 4 and 5.

Therefore the present claims are unobvious over JP '371 or JP '500 and Jen et al.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution please contact undersigned at the telephone number below.

Respectfully submitted,

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